



**UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/078,555	05/14/98	PATEL	Q50373

LM02/1004
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EXAMINER

TRAN, C

ART UNIT PAPER NUMBER

2746

DATE MAILED: 10/04/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
09/078,555

Applicant(s)
Patel et al.

Examiner
Congvan Tran

Group Art Unit
2746



☒ Responsive to communication(s) filed on May 14, 1998

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-40 is/are pending in the application.

Of the above, claim(s) 1-22 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 23-40 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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DETAILED ACTION

Title

“RADIO RECEIVER FOR RECEIVING BOTH VSB AND QAM DIGITAL HDTV SIGNAL”

Continuation-in-Part

1. This application repeats a substantial portion of prior Application No. 08/266,753, filed on June 18, 1994, and adds and claims additional disclosure not presented in the prior application. Since this application names an inventor or inventors named in the prior application, it may constitute a continuation-in-part of the prior application. Should applicant desire to obtain the benefit of the filing date of the prior application, attention is directed to 35 U.S.C. 120 and 37 CFR 1.78.

Claim Rejections - 35 U.S.C. § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 23-40 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession

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of the claimed invention. The method of controlling the operation mode of and equalizer added in response to the identification of DC component of the received signal added in specification and claims raise new subject matters and issues.

Claim Rejections - 35 U.S.C. § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

5. Claim 23, 26-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Nielsen (5,684,827). In view of the above 112, first paragraph rejection, the effective filing date of the added subject matter and claims is May 14, 1998.

Regarding claim 23, Nielsen discloses a system for controlling the operation mode of an adaptive equalizer comprising steps of identifying a direct current component of a received signal (see fig. 1, element 38, col.2, lines 18-20); and controlling the operation mode of the equalizer in response to the identification of the direct current component of said received signal (see fig. 1, 20, 41 and abstract).

Regarding claim 26, Nielson discloses a system for controlling the operation mode of an adaptive equalizer comprising determining the variation, during an interval of time, of the direct

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current level of a received signal; and controlling the operation mode of the equalizer in response to the determined variation (see claim 1).

Regarding claim 27, Nielsen further discloses the received signal comprises multi-level symbols representing data and a field synchronizing signal, said symbols being characterized by a DC offset and wherein the determining step further comprises processing the field synchronizing signal to determine the variation of the DC offset in the received signal (see col.6, claim 2).

Regarding claim 28, Nielsen further discloses the field synchronizing signal comprises a pseudo random number symbol sequence and wherein the processing comprises sampling a part of the pseudo random number symbol sequence (see col.6, claim 3).

Regarding claim 29, Nielsen further discloses the sampled symbol sequence is surrounded by a plurality of non-variant symbols (see col.6, claim 4).

Regarding claims 30 and 37, Nielsen discloses a system for controlling the operation mode of an adaptive equalizer comprising a detector for determining the direct current level of received digital television signal (see fig.1, 22, col.3, lines 19-23 and its description); and an adaptive equalizer having different operating modes for responding to said received digital television signal, the operating mode of said adaptive equalizer being selected responsive to the direct current level of said received digital television signal (see fig.7, col.5, lines 9-13 and col.2, lines 5-7).

Regarding claims 24-25, 31-33 and 38-40, Nielsen further characterized by being of a type in which responsive to the amplitude of a direct component of said received signal being more than a prescribed threshold value, said adaptive equalizer is conditioned to have amplitude versus

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frequency characteristic determined responsive to calculations using at least a portion of said field synchronizing signal as a training signal (see fig. 1, 38, 41, 20, col. 1, lines 43-61 and its description).

Regarding claim 34, Nielson discloses a system for controlling the operation mode of an adaptive equalizer comprising means for determining the variation of the direct current (DC) level of a received signal during an interval of time; and means for controlling the operating mode of said adaptive equalizer as a function of the determined DC variation (see col.7, claim 14).

Regarding claim 35, Nielsen further discloses the received signal includes a field sync signal and wherein said DC variation determining means operates on said field sync signal (see col.7, claim 15).

Regarding claim 36, Nielsen further discloses the field sync signal comprises a pseudo random number sequence of symbols, and further including: means for sampling a portion of said sequence of symbols for processing by said DC variation means (see col.7, claim 16).

Conclusion

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications intended for entry)

Or:

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*(703) 305-9508 (for informal or draft communications, please label
"PROPOSED" or "DRAFT")*

*Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington,
VA., Sixth Floor (Receptionist).*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Congvan Tran whose telephone number is (703) 305-4024. The examiner can normally be reached on Monday-Thursday from 6:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fan Tsang, can be reached on (703) 305-4895. The fax phone number for this Group is (703) 308-6306 or (703) 308-6296.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Sept. 20, 2000

Congvan Tran

Edward F. Urban
EDWARD F. URBAN
PRIMARY EXAMINER

